

What is claimed is:

1. A circuit configuration for a metal solvent extraction plant comprising:
  - A) an extraction section for extracting metal ions from an aqueous leach solution containing the metal ions with an organic solvent solution containing at least one metal extraction reagent, wherein the extraction section consists of three countercurrent extraction stages; and
  - B) a stripping section consisting of one stripping stage for stripping the metal ions from the metal extraction reagent.
2. The circuit configuration of claim 1 wherein the stripping stage is connected to one of the extraction stages.
3. The circuit configuration of claim 2 wherein the stripping stage is connected to the third extraction stage.
4. The circuit configuration of claim 1 wherein the metal solvent extraction plant is a copper metal solvent extraction plant.
5. The circuit configuration of claim 1 wherein the solvent extraction reagent comprises an alkylated hydroxyoxime.
6. The circuit configuration of claim 5 wherein the solvent extraction reagent comprises an alkylated acetophenone oxime and/or an alkylated salicylaldoxime.
7. The circuit configuration of claim 6 wherein the solvent extraction reagent comprises a mixture of an alkylated acetophenone oxime and an alkylated salicylaldoxime.

8. The circuit configuration of claim 6 wherein the solvent extraction reagent comprises 5-nonyl-2-hydroxyacetophenone oxime and/or 5-nonylsalicylaldoxime.
- 5 9. The circuit configuration of claim 1 wherein the solvent extraction circuit also comprises a wash or scrubbing stage.
- 10 10. A method for increasing the metal recovery on a metal solvent extraction plant that comprises two extraction stages in combination with two stripping stages, comprising reconfiguring the plant to contain three countercurrent extraction stages in combination with one stripping stage.
- 10 11. The method of claim 10 wherein the metal solvent extraction plant is a copper metal solvent extraction plant.
12. In a metal solvent extraction plant for extracting metal from a metal ore, wherein the plant contains an extraction section for extracting metal ions from an aqueous leach solution using a substantially water-immiscible organic solvent containing at least one metal extraction reagent, and a stripping section for stripping the metal ions from the metal extraction reagent, the improvement wherein the extraction section consists of three countercurrent extraction stages, and the stripping section consists of one stripping stage.
- 15 13. The extraction plant of claim 12 which is a copper extraction plant.
- 20 14. A solvent extraction process for extracting metals from an aqueous leach solution containing metal values comprising the steps of:
- I) contacting said aqueous leach solution containing metal values with a water-immiscible organic solvent containing an extraction reagent in

a first extraction stage to extract metal values from said leach solution;

II) separating the resulting metal value-containing organic solvent from the aqueous leach solution;

5 III) contacting the separate aqueous leach solution from step II) with a water-immiscible organic solvent containing an extraction reagent in a second extraction stage to further extract metal values from the aqueous leach solution;

10 IV) separating the resulting aqueous leach solution from the water-immiscible organic solvent;

V) contacting the separated aqueous leach solution from step IV) with a water-immiscible organic solvent containing an extraction reagent in a third extraction stage to extract additional metal values from the aqueous leach solution from step IV; and

15 VI) separating the resulting aqueous leach solution from the water-immiscible organic solvent.

15. The process of claim 14 wherein in step I) the aqueous leach solution is an aqueous acidic leach solution containing copper values.

16. The process of claim 14 wherein the aqueous leach solution is an aqueous  
20 basic leach solution containing nickel values.

17. The process of claim 14 wherein the separated metal-value containing organic solvent obtained in step II) is contacted with an aqueous acidic strip solution in a strip stage to strip metal values therefrom.

18. The process of claim 17 wherein only one strip stage is employed in the  
25 process.

19. The process of claim 17 wherein the stripped water-immiscible organic solvent from the strip stage is used in step V).
20. The process of claim 19 wherein the water-immiscible organic solvent from step VI) is used in step III) and the water-immiscible organic solvent from step IV) is used in step I).
21. The process of claim 14 wherein the extraction reagent used in the process comprises an alkylated hydroxyoxime.
22. The process of claim 21 wherein the extraction agent comprises an alkylated acetophenone oxime and/or an alkylated salicylaldoxime.
23. The process of claim 21 wherein the extraction reagent comprises a mixture of an alkylated acetophenone oxime and an alkylated salicylaldoxime.
24. The process of claim 21 wherein the extraction agent comprises 5-nonyl-2-hydroxyacetophenone oxime and/or 5-nonylsalicylaldoxime.
25. The process of claim 14 wherein the process also comprises at least one wash or scrubbing stage.